NIH NATIONAL CANCER INSTITUTE

MODIFIED POTE PEPTIDES FOR CANCER IMMUNOTHERAPY

SUMMARY

Investigators at the National Cancer Institute's Vaccine Branch have identified and enhanced immunogenicity of POTE epitopes to improve their efficacy in cancer vaccines.

REFERENCE NUMBER

E-003-2010

PRODUCT TYPE

- Therapeutics

KEYWORDS

- immunogenic peptides
- POTE
- immunotherapy

COLLABORATION OPPORTUNITY

This invention is available for licensing and co-development.

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DESCRIPTION OF TECHNOLOGY

POTE is a novel tumor antigen expressed in a variety of cancers including breast, prostate, colon, lung, ovary, and pancreas cancers. POTE has limited expression in normal tissues and therefore a specific target for cancer treatments, including immunotherapy. The researchers seek statements of capability or interest from parties interested in collaborative research to further develop, evaluate, or commercialize immunogenic peptides.

Antigen-specific cancer immunotherapy often relies on identification of epitopes expressed by cancer cells that can targeted by cytotoxic T cells (CTL). However, the CTL repertoire against high-affinity cancer epitopes is often ineffective because cancer epitopes may share a similar structure to natural "self" antigens. As a result, cancer cells are not recognized by CTLs and destroyed. The enhanced POTE epitopes induce a stronger immune response than natural responses. These modified epitopes are more effective at inducing CTL against POTE expressing cancer cells and have greater potential to serve as cancer vaccine targets.

INVENTOR(S)

- Jay A Berzofsky (NCI), Yi-Hisang Huang (NCI), Masaki Terabe (NCI), Ira H Pastan (NCI)

DEVELOPMENT STAGE

- Discovery (Lead Identification)

PATENT STATUS

- **U.S. Filed:** US, Application No. 13/610,421 filed 11 Sep 2012

THERAPEUTIC AREA

- Cancer/Neoplasm